EPA

United States Environmental Protection Agency
Washington, D.C. 20460

Water Compliance Inspection Report

Section A: National Data System Coding (i.e. PCS)

Transaction Code	NPDES	yr/mo/day	Inspection Type	Inspector	Fac Type
1 N 2 5	3 I D 0 0 2 2 0 6 3 11	12 1 3 0 5 2 1 17	18 C	19 S	20 1

Remarks

21 66

Inspection Work Days	Facility Self-Monitoring Evaluation Rating	BI	QA	Reserved
67 7 0 69	70 3	71 N	72 N	73 74 75 80

Section B: Facility Data

Name and Location of Facility Inspected *(For industrial users discharging to POTW, also include POTW name and NPDES permit number)*	Entry Time/Date	Permit Effective Date
City of Nampa Wastewater Treatment Plant 340 W. Railroad St. Nampa, Idaho 83687	9:00:00 AM 5/21/2013 Exit Time/Date 4:00 p.m. 5/21/2013	2/1/1999 Permit Expiration Date 2-Feb-04

Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Numbers	Other Facility Data (e.g., SIC, NAICS, and other descriptive information)
Mr. Greg Pearce - WWTP Superintendent City of Nampa Wastewater Treatment Plant Phone # 208-468-5843 Fax # 208-467-9194	SIC: 4952 (Sewage System) NAISC: 221320 (Sewage Treatment Facilities)
Name, Address of Responsible Official/Title/Phone and Fax Number Mr. Greg Pearce - WWTP Superintendent City of Nampa Wastewater Treatment Plant Phone # 208-468-5843 Fax # 208-467-9194	Contacted [X] Yes [ ] No

Section C: Areas Evaluated During Inspection (Check only those areas evaluated)

X	Permit	X	Self-Monitoring Program	X	Pretreatment		MS4
X	Records/Reports		Compliance Schedule		Pollution Prevention		
X	Facility Site Review	X	Laboratory		Storm Water		
X	Effluent/Receiving Waters	X	Operations & Maintenance		Combined Sewer Overflow		
X	Flow Measurement	X	Sludge Handling/Disposal		Sanitary Sewer Overflow		

Section D: Summary of Findings/Comments

(Attach additional sheets of narrative and checklists, including Single Event Violation codes, as necessary)

SEV Codes | SEV Description

RECEIVED
JUL 16 2013
Inspection & Enforcement Management Unit (IEMU)

Name(s) and Signature(s) of Inspector(s)	Agency/Office/Phone and Fax Numbers	Date
Michael Spomer Michael Spomer	IDEQ- State Office /208-373-0232/208-373-0143	5/29/2013
A.J. Maupin, P.E. A.J. Maupin PE	IDEQ State Office / 208-373-1067 / 208-373-0576	4 June 2013

EPA Form 3560-3 (Rev 1-06) Previous editions are obsolete

ICIS.
7-17-2013

NPDES
INSPECTION REPORT

WASTEWATER TREATMENT FACILITY

City of Nampa

Permit Number: ID-002206-3

INSPECTION DATE: May 21, 2013

REPORT DATE: May 29, 2013

Prepared By
Michael Spomer
Technical Services
Idaho Department of Environmental Quality

Table of Contents

I. Facility Information

Facility Name:	City of Nampa
Facility Type:	Sewage Treatment Plant
Facility Location:	City of Nampa Wastewater Treatment Plant 340 W. Railroad St. Nampa, Idaho 83687
Mailing Address:	City of Nampa 411 3rd St. South Nampa, Idaho 83687
Facility Contacts:	Greg Pearce – Superintendent PEARCEG@CityofNampa.us
Facility Numbers:	Telephone: (208) 468-5843
Permit Number:	ID-002206-3
Permit Status:	Permit became effective on February 1, 1999 and expired on February 2, 2004. A permit re-application was submitted on July 28, 2003. The permit has been administratively extended.
SIC Code:	4952

II. Inspection Information

Inspection Date/Time:	May 21, 2013 – 9:00 a.m. to 4:00 p.m.
Inspectors:	Mike Spomer (DEQ – Tech Service) David Domingo – EPA Stacey Erickson – EPA
City of Nampa Representative :	Greg Pearce – WWTP Superintendent Armando Martinez – Lab Manager
Weather:	Overcast skies and 68^0 F
Purpose:	Determination of compliance with the NPDES permit and the Clean Water Act.

III. Inspection Entry

I contacted Mr. Pearce on May 7, 2013 to schedule the date of May 21, 2013 for an inspection. Mr. Pearce was agreeable to hold the inspection on that date.

On May 21, 2013, Mr. David Domingo, Ms. Stacey Erickson (both with the US EPA), and I arrived at the City of Nampa Wastewater Treatment Plant (WWTP) at 9:00 a.m. and met with Mr. Pearce. I presented my credentials and identified myself as the certified NPDES inspector who would be conducting the inspection on behalf of EPA. I indicated that Mr. Domingo and Ms. Erickson were there to observe how the State of Idaho conducts an NPDES inspection and to assist in the inspection, if necessary.

I explained the purpose of the inspection and requested permission to inspect the facility. Mr. Pearce agreed to allow us access to the facility.

IV. Inspection Chronology

The May 21, 2013 Inspection began with an opening conference where I discussed the specific areas that I would be reviewing during the inspection. I presented Mr. Pearce a list of documents I would like to review while on site. Mr. Pearce indicated he would gather the requested documents as we inspected the plant. Mr. Pearce then described the wastewater flows and treatment process for the wastewater received from the City of Nampa. After his presentation, I asked Mr. Pearce several questions concerning the status of the permit re-application, and general operational questions.

At this point, we began our facility inspection of the wastewater treatment operations. The inspection included the general water treatment units, the solids handling system, and observation of the upstream Indian Creek sampling station. (Because the Indian Creek flow metering station was off site, Mr. Pearce escorted us off site after the closeout meeting to observe the flow meter station). The facility on-site inspection concluded with a tour of the analytical lab.

After the facility on-site inspection, we returned to the conference room where we began reviewing the documents requested at the start of the inspection. Mr. Pearce provided a copy of the Operation Manual and the Quality Assurance Plan (QAP) for our review.

The facility was discharging at the time of the inspection. See the attached photo log of our inspection observations.

Prior to leaving the treatment facility, I conducted a closing conference with Mr. Pearce where I summarized the observations from the inspection. We left the facility and drove to observe the Indian Creek flow metering station. Following that observation, Mr. Domingo, Ms. Erickson, and I left the area of the City of Nampa wastewater treatment facility. The time was approximately 4:00 p.m.

V. Owner and Operator Information

The facility is owned and operated by the City of Nampa. It services the City of Nampa, which includes domestic and non-domestic wastewater sources.

The City of Nampa has submitted their NPDES re-application, and the permit has been administratively extended until the new permit is issued.

VI. Background

The NPDES permit authorizes the facility to discharge to Indian Creek via Outfall No. 001. As noted in the permit, the Outfall No. 001 is located at Latitude: 43° 35' 50"N, Longitude: -116° 34' 52"W.

The NPDES permit allows the City of Nampa to discharge to Indian Creek year round. Discharge limits for Total Residual Chlorine and Total Ammonia are adjusted based on the flow in Indian Creek.

According to Mr. Pearce, the City of Nampa Wastewater Plant has a current treatment flow rate of 9.5 – 10 MGD, and the plant has been upgraded to handle a design flow of 18 MGD. The influent flow is dependent on two, large non-domestic wastewater sources (sugar beet and potato processor plants). Mr. Pearce estimated the Infiltration and Inflow (I&I) at approximately 0.5 MGD. The storm water collection system is separate from the sanitary sewers.

The City of Nampa is currently in the design phase for upgrading and modifying the facility to reduce its phosphorus discharge concentrations. Construction and facility modifications are scheduled to begin in spring of 2015.

VII. Waste Management Process

Current Waste Management:
The City of Nampa collects the sanitary waste in underground sewers throughout the City of Nampa. There are four (4) collection mains and one lift station servicing the City of Nampa. The City of Nampa receives non-domestic wastewater from approximately ten (10) companies including a large sugar beet processing facility and a potato processing facility.

All influent flow is screened to remove debris and grit. A flow proportional composite sampler is used to collect the daily influent water sample. The solids removed are collected and shipped to the local landfill for disposal. The screened wastewater then flows to one of three (3) primary clarifiers, normally one is online and the other two offline. They are switched annually.

From the primary clarifier, the water is pumped to three (3) trickling filters. From the trickling filters, the wastewater is pumped to two (2) secondary clarifiers. From the secondary clarifiers, the water is pumped to one of two denitrification aeration basins. From the aeration basin, the water is pumped to two of three final clarifiers. The final clarifier overflow is chlorinated as it enters the chlorine contact chamber. Prior to discharge to Indian Creek, the water is dechlorinated and aerated. A flow proportional effluent composite sample is collected at the discharge.

The solids that are purged from the clarifiers are collected and processed through two anaerobic digesters. A portion of the methane gas generated in the digester is collected and used as fuel in the facility boilers. The excess gas is sent to a flare stack. The biosolids are processed through a belt press in the winter months and through sludge

drying beds in the summer months. The solids are shipped by truck to the Idaho Waste Systems Class D Landfill in Elmore County, Idaho. The facility shipped 1324 dry tons of biosolids in 2012. They have submitted the biosolids annual report as required under Part I.E.13 of the permit.

The facility is equipped with three (3) large emergency generators to provide backup power when required.

Operations and Maintenance Plan Review:

During the inspection, Mr. Pearce was able to provide a current copy of the Operations and Maintenance Plan. There were no issues noted with the Operations and Maintenance Plan.

Quality Assurance Plan (QAP) Review:

During the inspection, Mr. Pearce was able to provide a current copy of a QAP.

Future Waste Management:

The City of Nampa has begun designing the upgrades and modifications to the wastewater treatment plant to meet the new phosphorus loading limits for discharging into Indian Creek. The facility plans to start construction in 2015.

VIII. Facility Sample Collection and Analyses

All influent and effluent water samples are collected by the City of Nampa operations and laboratory staff. The City of Nampa lab performs all the analysis in the permit except the heavy metals and TKN. These samples are sent under a chain of custody to either City of Boise –West Wastewater Treatment Plant Lab (11818 Joplin Road, Boise, Idaho) or to Analytical Labs (1802 N. 33rd Street, Boise, Idaho).

The City of Nampa performs the following testing at its on-site lab: Biological Oxygen Demand (BOD_5), Total Suspended Solids (TSS), Fecal Coliform, Escherichia *coli* (E. *coli*), Total Residual Chlorine, Total Phosphorus (P), and Total Ammonia (N), Dissolved Oxygen (DO), pH, and Oil and Grease.

Whole Effluent Toxicity (WET) testing is performed semi-annually. The testing is performed off site at Analytical Labs in Boise.

During the review of the lab facilities, the lab was able to produce records for calibration testing of all instrumentation except the incubation oven. A check of the pH buffer solutions, used in the lab, confirmed the solutions were still within their expiration date.

As part of the document review, the facility was able to produce the calibration records for the influent and effluent flow meters for the past three years. No issues were noted with the calibration.

The City prepares their DMRs and submits them via electronic format through NetDMR. During the document review, it was confirmed that Mr. Greg Pearce and the Assistant Superintendent have been authorized by the Mayor and City Council to sign the DMR forms for the City.

IX. Areas of Concern

This inspection included a review of the treatment system, the sample collection and analytical procedures, and the documentation required by this permit. During the course of this inspection, the following areas of concern were identified:

A. Quality Assurance Plan (QAP) Part I. F. of the Permit specifies that the permittee develop a QAP for all monitoring requirements identified in the Permit. At a minimum, the QAP must include the following:

- Item 4:
  i. Sampling techniques (field blanks, replicates, duplicates, control samples, etc.).
  ii. Sampling preservation methods.
  iii. Sampling shipment procedures.
  iv. Instrument calibration procedures and preventive maintenance (frequency, standard, spare parts).
  v. Qualifications and training of personnel.
  vi. Analytical methods (including quality control checks, quantification/detection levels).
  vii. Analytical test methods that will be used to achieve the method detection limits in Section I.B.5

- Item 5: Name(s), address(es), and telephone number(s) of the laboratory, used by or proposed to be used by the permittee, shall be specified in the Quality Assurance Plan.

- Item 6: The permittee shall require the laboratory director of each laboratory, providing measurement results in support of this permit, to sign and submit to EPA the following statement on a monthly basis with the DMR:

  I certify that this data is in compliance with requirements under 40 CFR 136 and other analytical requirements specified in NPDES permit No. ID-002206-1.

  Signature: _____ Date: _____

At the time of the inspection, the following areas of concern were noted:

1. The QAP had not been updated to include the analysis performed by the outside lab for TKN. ITEM #4
2. The QAP did not include the required information for the West Boise Lab being used by the City of Nampa for heavy metals and TKN analysis. ITEM #5
3. The City of Nampa has not included the required statement and signature of the outside labs used to provide data in the DMRs. ITEM #6
4. As a result of the March 2010 NPDES Inspection, which noted the lab methods were not included on the daily work sheets, the City of Nampa revised the work sheets to include the methods used to run the analysis. These revised sheets were not in the QAP at the time of this inspection. ITEM #4
5. The QAP did not include the temperature calibration testing performed for their incubation units. ITEM #4

My concern is the QAP did not include all the information specified in Part I. F. of the Permit.

B. Reporting of Monitoring Results specifies that the permittee submit the following information with their Discharge Monitoring Reports:

- Part I.A.7 and Part I.A.8:
    i. Individual Indian Creek flow rates;
    ii. The maximum daily limit for each Indian Creek flow rate;
    iii. Individual effluent values for total residual chlorine and total ammonia (as N);
    iv. Monthly average Indian Creek flow rate;
    v. Average monthly effluent limit;
    vi. Average monthly effluent flow volume;
    vii. Average monthly effluent concentration and loading of total residual chlorine and total ammonia (as N).

The City of Nampa has not included the required reporting for the Indian Creek Total Residual Chlorine and Total Ammonia (as N) with the monthly DMRs.

My concern is the City of Nampa failed to submit true, accurate, and complete DMRs as specified in Parts I.A.7 and I.A.8.

- Part II.C of the Permit specifies that the permittee must summarize monitoring results each month on the Discharge Monitoring Report (DMR) and sign and certify that the DMRs are true, accurate, and complete.

  At the time of the inspection, the March 2013 DMR was reviewed along with corresponding analytical data (i.e., daily lab work sheets, and monthly spreadsheet data, etc.). The following deficiencies were noted:
    - The instantaneous maximum concentration for total residual chlorine was listed and not the daily maximum concentration.
    - The average weekly limit for Fecal Coliform was not listed.

- The calendar week was not defined.
- The calculation for the 85% removal determination for BOD and TSS were based on average loading values and not the average concentration values, as specified in Part 1.5 of the permit.

My concern is the City of Nampa failed to submit true, accurate, and complete DMRs as specified in Part II.C.

- Part II.E of the Permit specifies that if the permittee monitors any pollutant more frequently than required by the permit, the results of this monitoring shall be included in the calculations and reporting of the data submitted in the DMR or Biosolids Report.

  The City of Nampa has not been including the additional testing performed for all parameters in Table 1 of the permit.

My concern is the City of Nampa failed to submit true, accurate, and complete DMRs as specified in Part II.E.

C. Design Criteria Requirements Part I.G of the Permit specifies the permittee shall compute an annual average value for flow, BOD, and TSS loadings entering the facility based on the previous twelve (12) months data or all data available, whichever is less.

At the time of the inspection, the City of Nampa could not produce the data or annual average required under this section of the permit.

My concern is that the Design Criteria Requirement had not been prepared and used to evaluate the status of the plant design and the potential need to submit a new facility plan.

D. Effluent Limitations and Monitoring Requirements Part I.A.1 of the Permit specifies the permittee is authorized to discharge wastewater into Indian Creek from Outfall 001 provided the discharge meets the limitations and monitoring requirements set forth herein. The discharge limit for Total Ammonia (as N) is referenced in Part I.A.8. Table 2. At a receiving Water Flow (Indian Creek) of 16-<36 cfs, the Average Monthly Limit is 0.09 mg/L (88.3 lbs/day) and the Maximum Daily Limit is 2.0 mg/L (196.2 lbs/day).

- Permittee self-reported the following exceedances of the Total Ammonia (as N) Effluent Limits for a Indian Creek flow of 16-<36 cfs

Date	Max. Daily Limit (2.0 mg/L)	Max. Daily Limit (196.2 lbs/day)
December 26, 2012	**3.42**	**300**
January 3, 2013	**2.49**	**189.1**
January 4, 2013	**2.19**	**8.5**
January 13, 2013	**9.57**	**833.6**
January 14, 2013	**2.84**	**249.2**

Note: Red values indicate permit limit exceedance.

My concern is that the permittee exceeded the Total Ammonia (as N) limits in the discharge to Indian Creek one day in December 2012 and on four days in January 2013.

X. Additional Observations

A. Quality Assurance Plan (QAP) Part I.F of the Permit specifies that the permittee develop a QAP for all monitoring requirements identified in the Permit. At a minimum, the QAP must include the following:

- Item 4:
  - Sampling techniques (field blanks, replicates, duplicates, control samples, etc.);
  - Sampling preservation methods;
  - Sampling shipment procedures;
  - Qualifications and training of personnel.

During the review of the analytical data submitted from Analytical Labs for non-routine sample analysis, dated March 21, 2013, the Chain of Custody did not record the temperature of the samples as received at the lab.

- The observation is that the lab personnel review all Chain of Custody forms issued and received for outside analytical work against the requirements of the QAP and the appropriate test methods.

During the review of the Training program for the lab personnel, the QAP did contain a written description of the training requirements for the lab staff. Based on discussions with the lab manager and staff, the training is on-the-job / hands-on training.

- There was no written confirmation that the lab staff had completed the required training and Mr. Armando Martinez, the manager of the lab, indicated that no records are placed in the personnel file confirming completion of the training. Written documentation of any training is a good practice and will further enhance the QAP requirements.

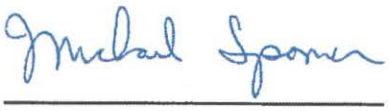
B. Specific Limitations and Monitoring Requirements Part I A.7. Table 1 of the permit lists the Indian Creek Total Residual Effluent Limits.

- There is a typo error in the first box for Indian Creek flow. It should list the flow at 0 -<16 cfs, and not 0-<1cfs.

XI. Inspection Sampling

Samples were not collected by DEQ at the time of this inspection (May 21, 2013).

Report Completion Date: **June 7, 20013**

Lead Inspector Signature: 

Michael Spomer
Technical Services
Idaho Department of Environmental Quality

Photographic Documentation

Name of Facility: City of Nampa WWTP

Inspector(s): Mike Spomer

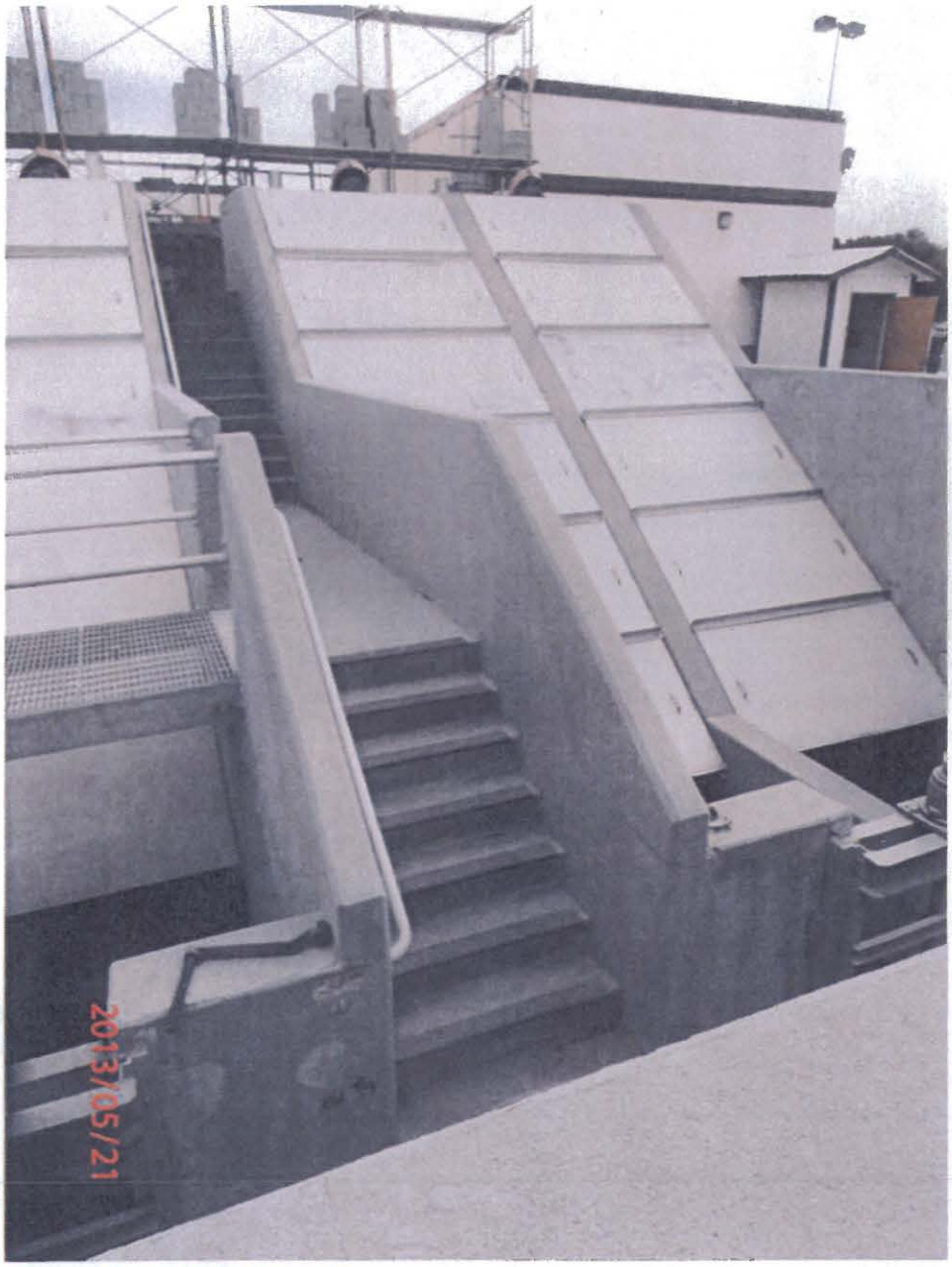
Inspection Date: Tuesday, May 21, 2013

Purpose of Inspection: NPDES Compliance Inspection

Publish Date: Wednesday 29 May 2013

Table of Photographs:

Photograph 1: Influent Grit Chamber

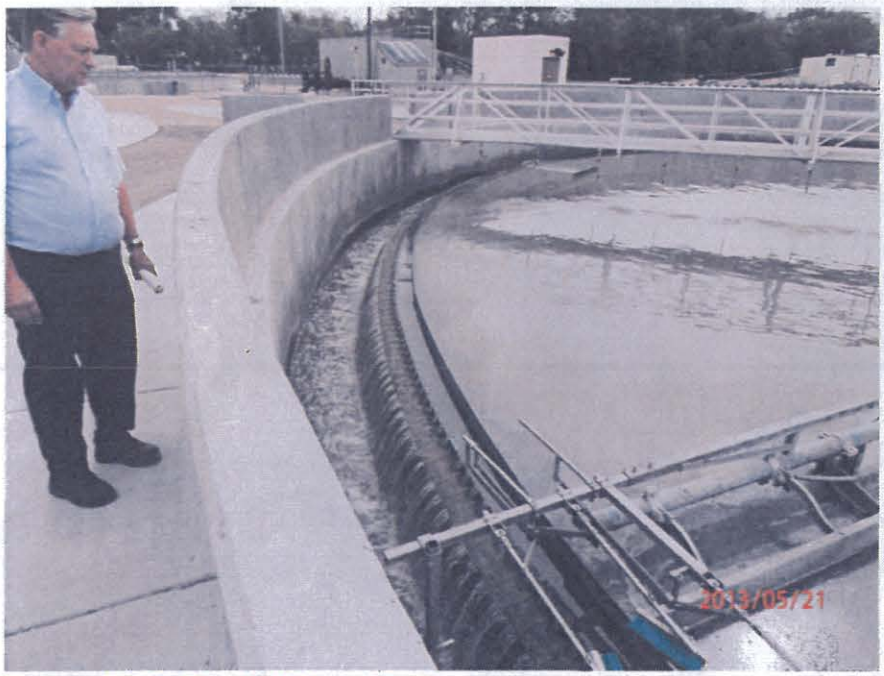


Photograph 2: Influent Grit Chamber

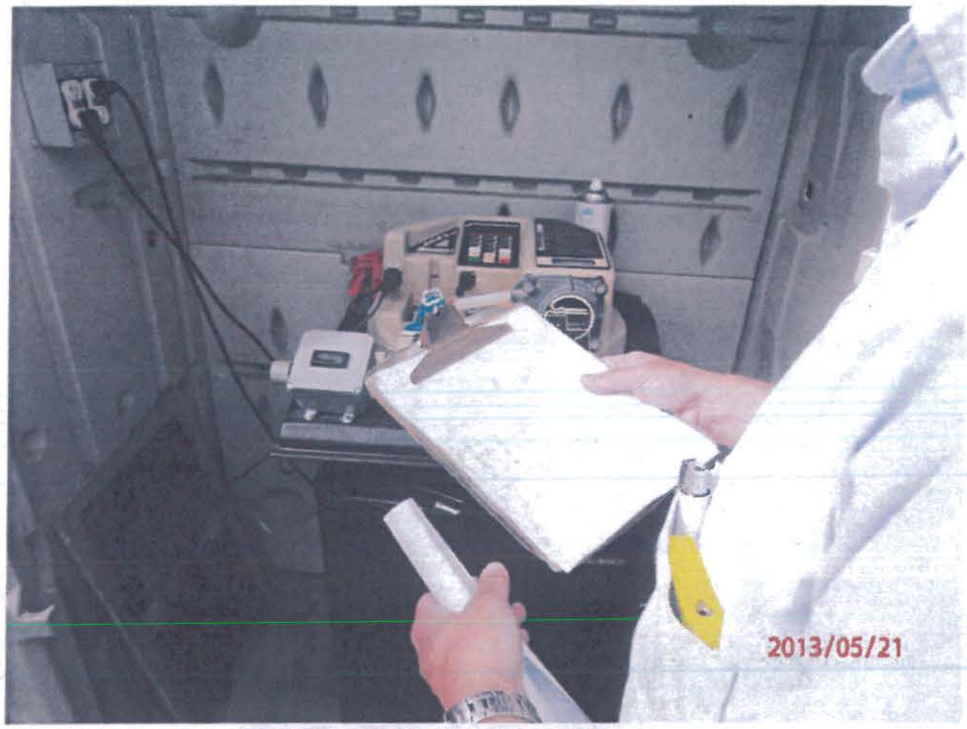
Photograph 3: Waste Hauler Dump Station - looking south

Photograph 4: Influent solids removal and collection station

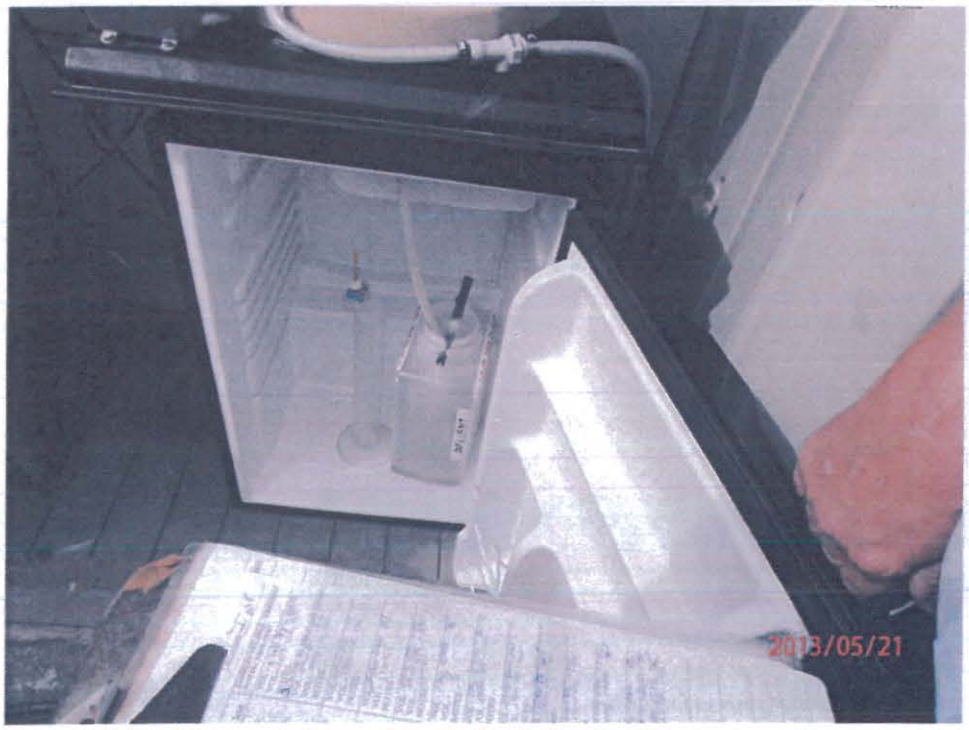
Photograph 5: #1 Primary Clarifier - looking east



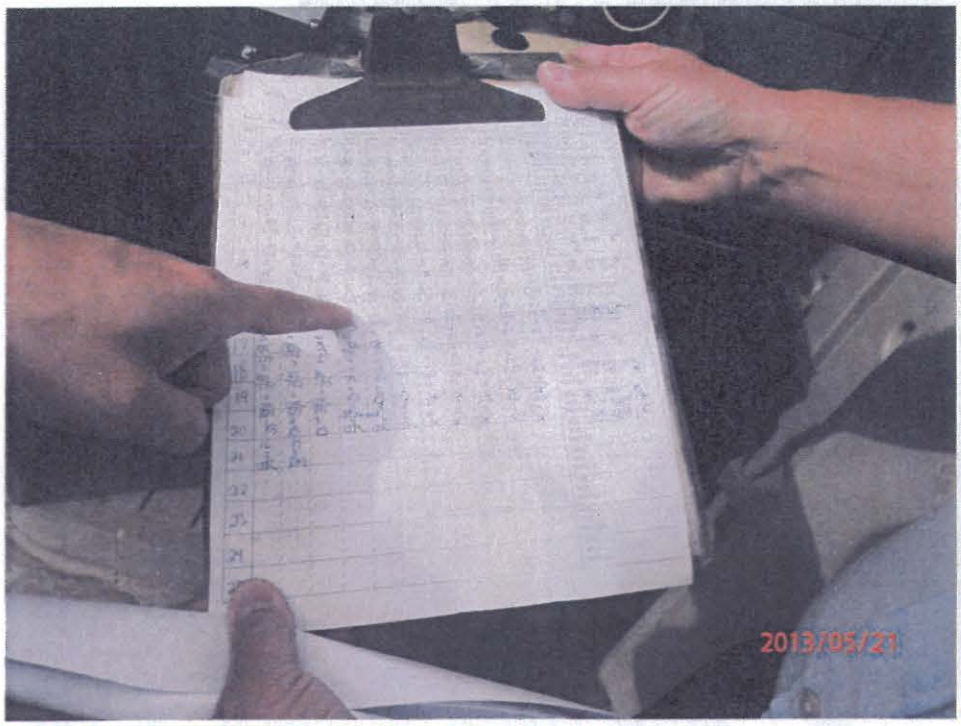
Photograph 6: Overflow of #1 Primary Clarifier



Photograph 7: Influent composite sampler - flow proportional



Photograph 8: Influent composite sampler collection bottle



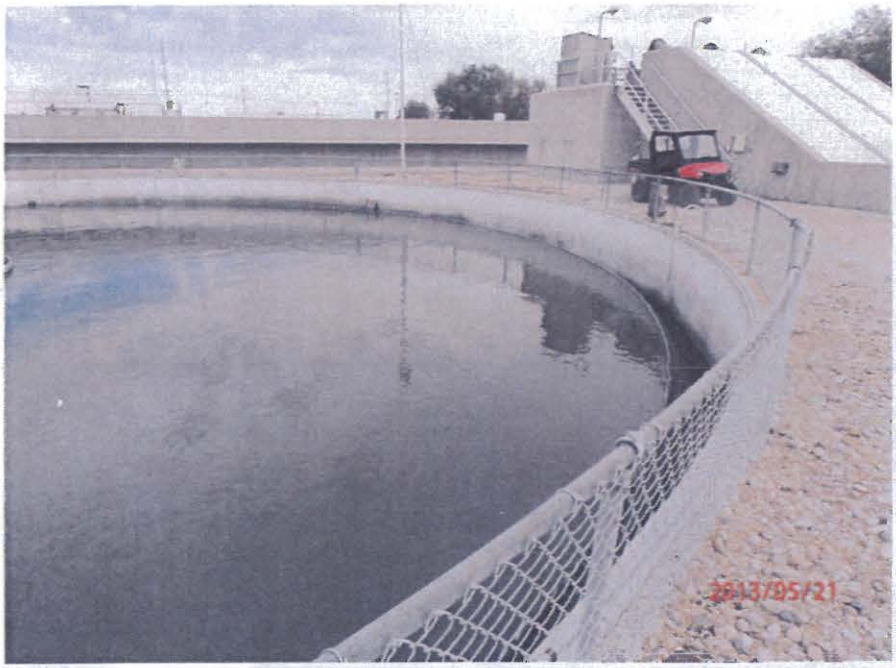
Photograph 9: Influent composite sampler - operator log sheet

Photograph 10: #2 Primary Clarifier - offline at time of inspection

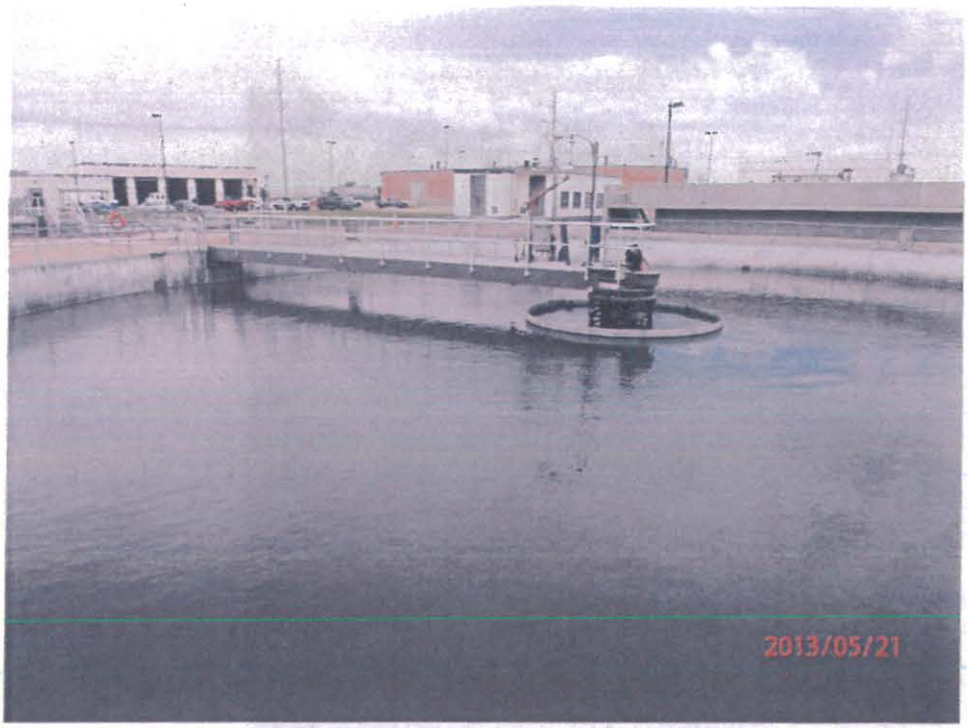
Photograph 11: One of 3 Trickling filters - looking northeast

Photograph 12: One of 3 Trickling filters - looking east

Photograph 13: Trickling Filter Effluent pumps



Photograph 14: Secondary Clarifier - looking west



Photograph 15: Secondary Clarifier - looking southeast

Photograph 16: The upstream receiving water body sampling location on Indian Creek. The two pipes are from the TASCO sugar beet factory.

Photograph 17: Aeration basin - looking north

Photograph 18: Aeration basin - northwest

Photograph 19: Spare aeration basin - looking west

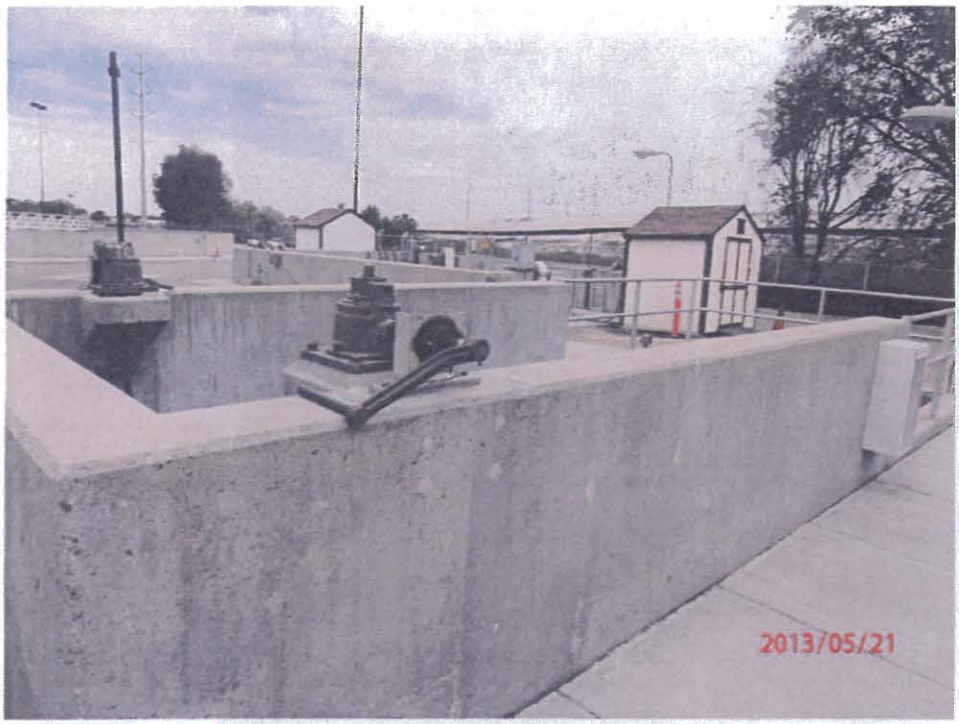
Photograph 20: Spare aeration basin - looking north

Photograph 21: Tertiary Clarifier overflow - looking north

Photograph 22: Tertiary Clarifier - looking southwest

Photograph 23: Tertiary Clarifier name plate

Photograph 24: Chlorine Contact Chamber overflow

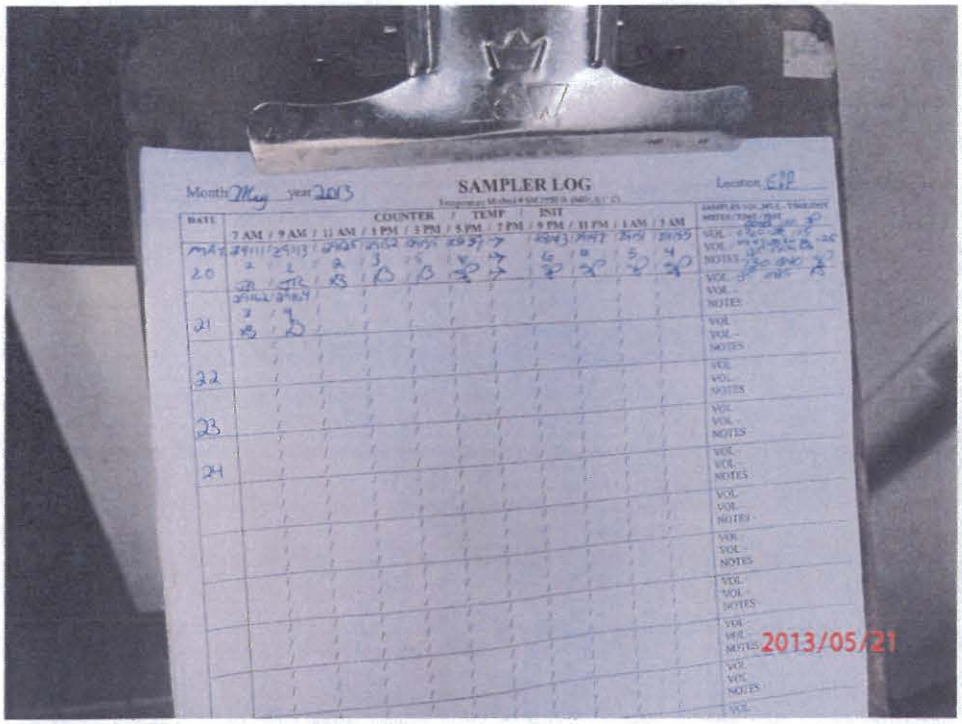


Photograph 25: Dechlorination station and plant effluent metering station - looking northwest

Photograph 26: Continuous Chlorine residual meter at overflow of chlorine contact chamber

Photograph 27: Effluent basin with aeration

Photograph 28: Effluent flow proportional composite sample controller



Photograph 29: Effluent composite sampler operator log sheet

Photograph 30: Effluent pipe outlet just prior to Indian Creek

Photograph 31: Effluent outfall into Indian Creek - looking north

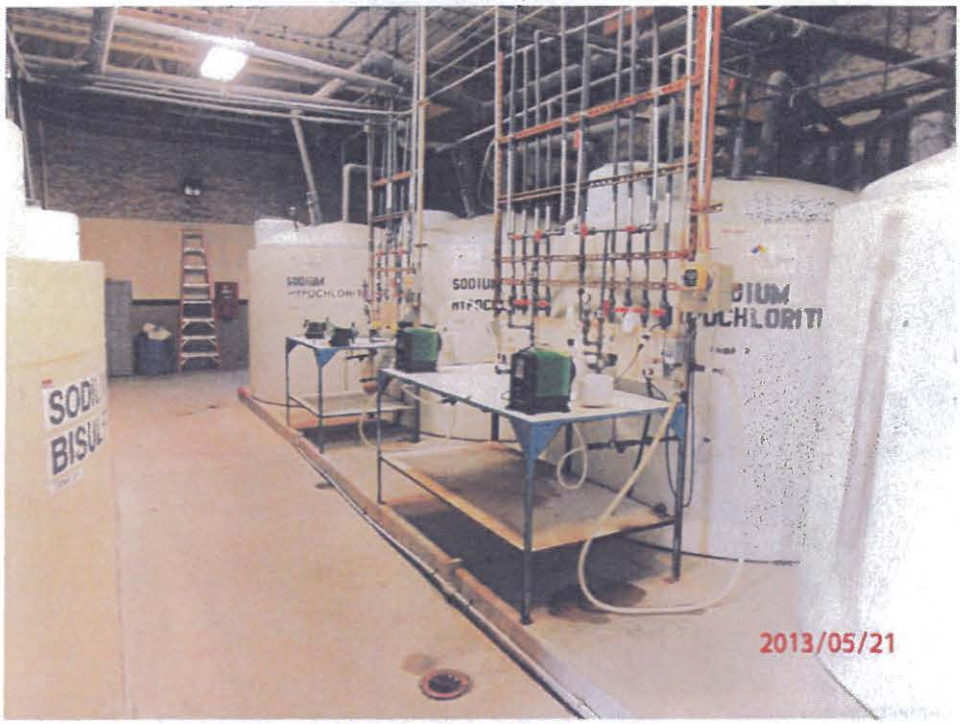
Photograph 32: Effluent outfall into Indian Creek - looking east

Photograph 33: Indian Creek downstream of effluent discharge

Photograph 34: Effluent pipe outlet just prior to Indian Creek

Photograph 35: Chlorine Contact Chamber outfall

Photograph 36: Chlorine Contact Chamber



Photograph 37: Treatment chemical storage and pumping building

Photograph 38: Dissolved Oxygen Floatation (DAF) sludge overflow

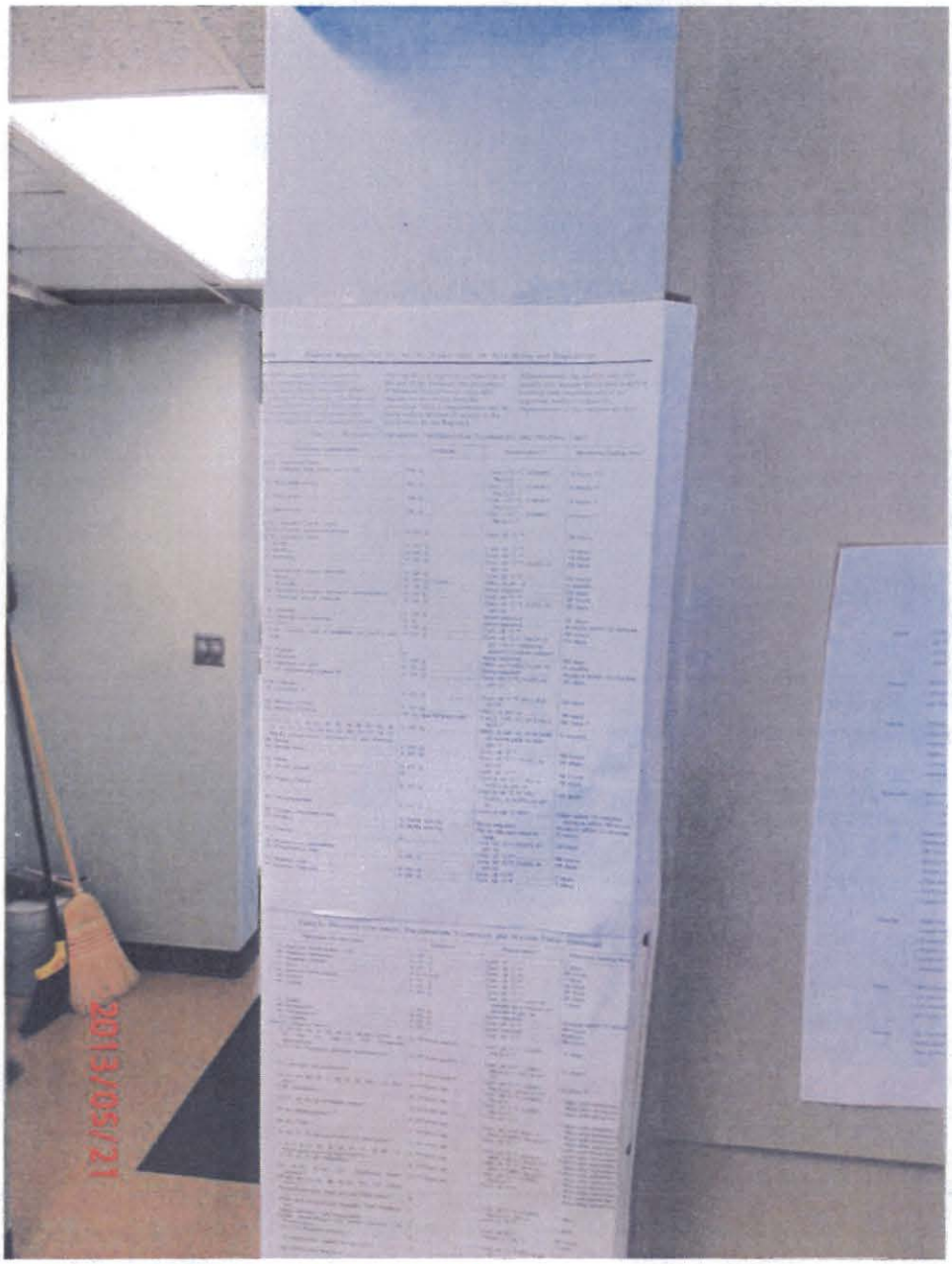
Photograph 39: DAF sludge removal tank - looking south

Photograph 40: Biosolids Belt Press

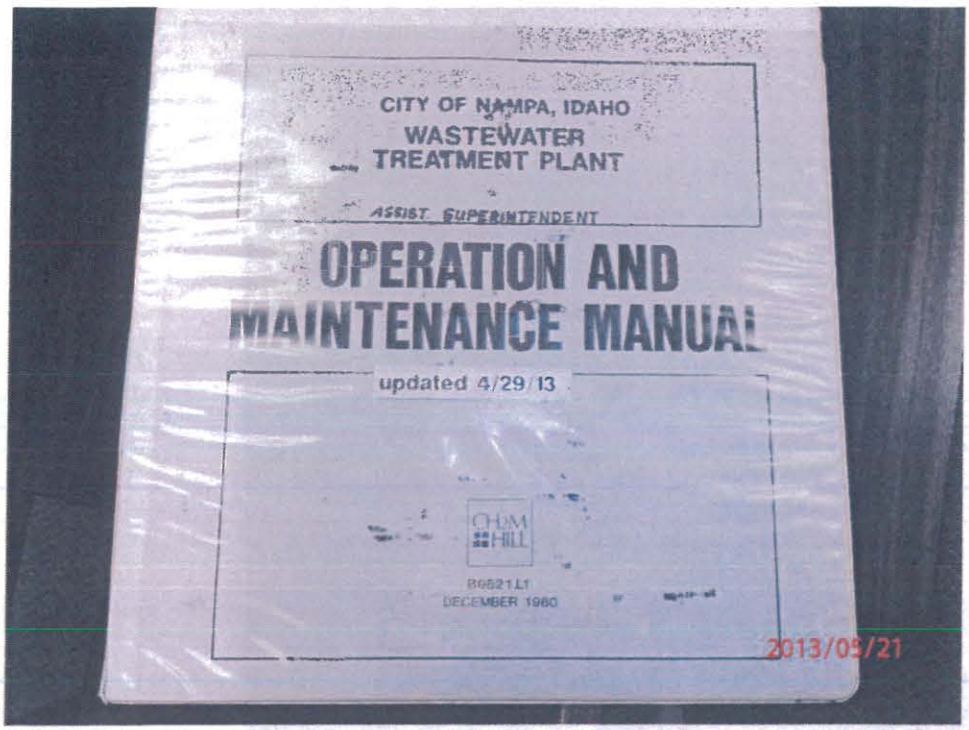
Photograph 41: Emergency Backup generators

Photograph 42: Emergency Backup generators

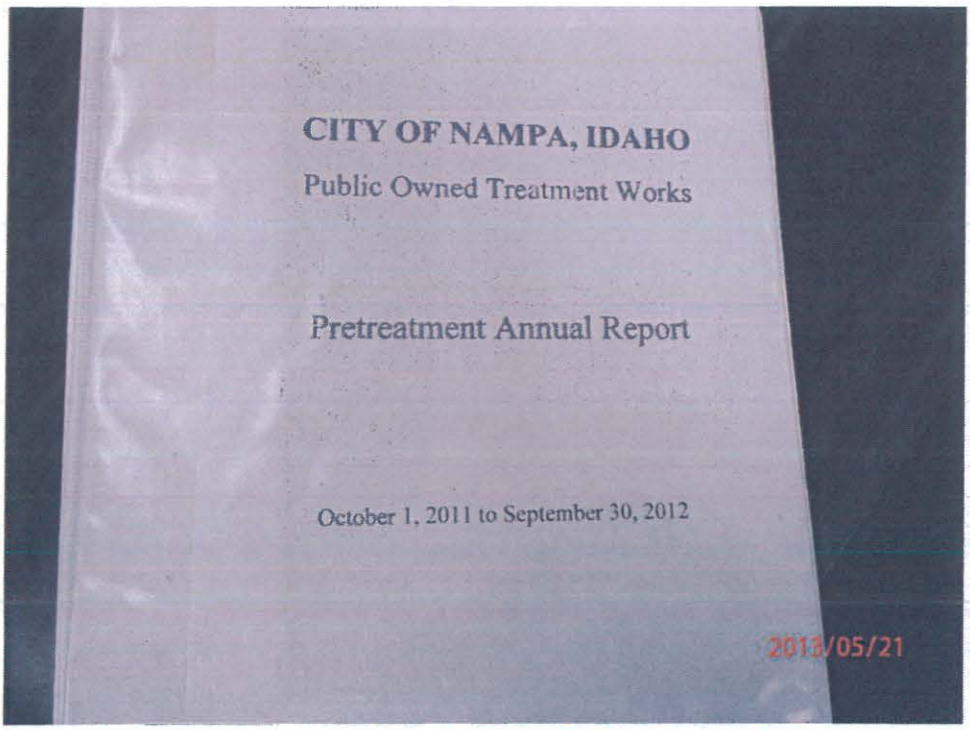
Photograph 43: Heat transfer units for Anaerobic Digester



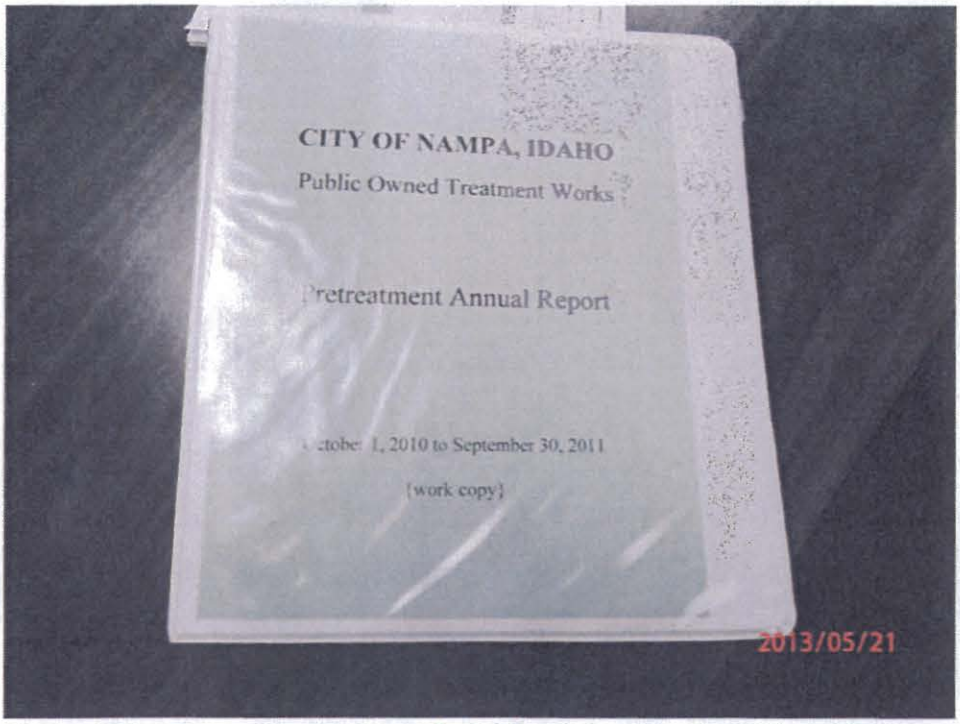
Photograph 44: Analytical test methods chart in lab



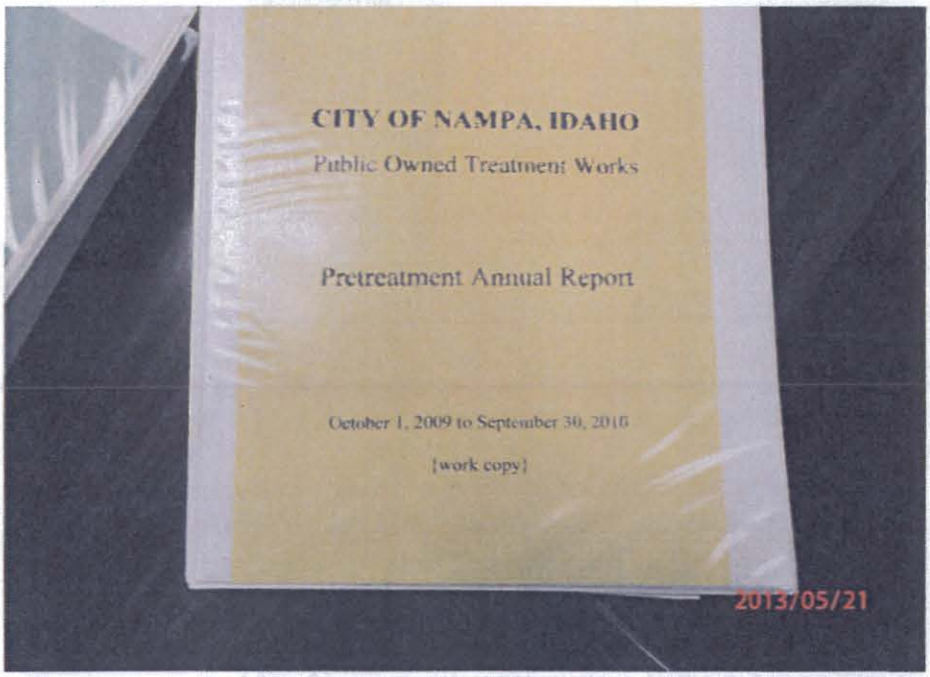
Photograph 45: Current Operation Manual



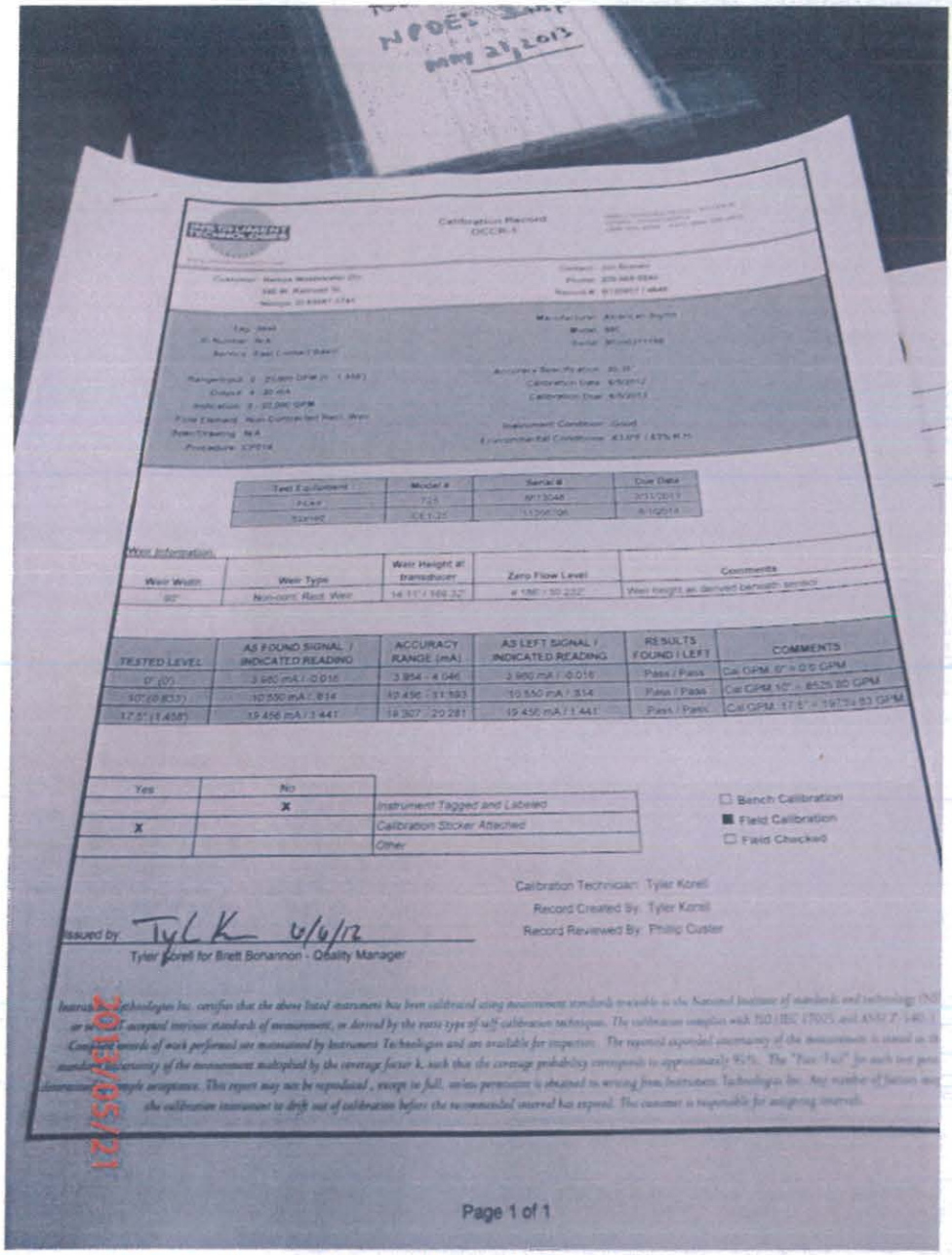
Photograph 46: Pretreatment Annual Report for October 2011 to September 2012



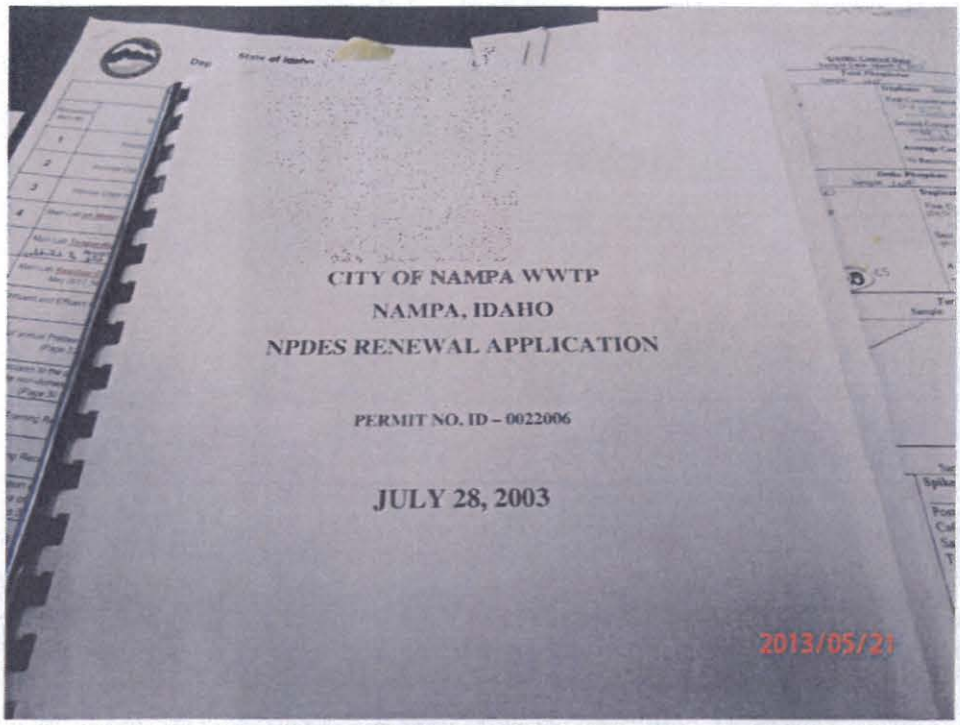
Photograph 47: Pretreatment Annual Report for October 2010 to September 2011



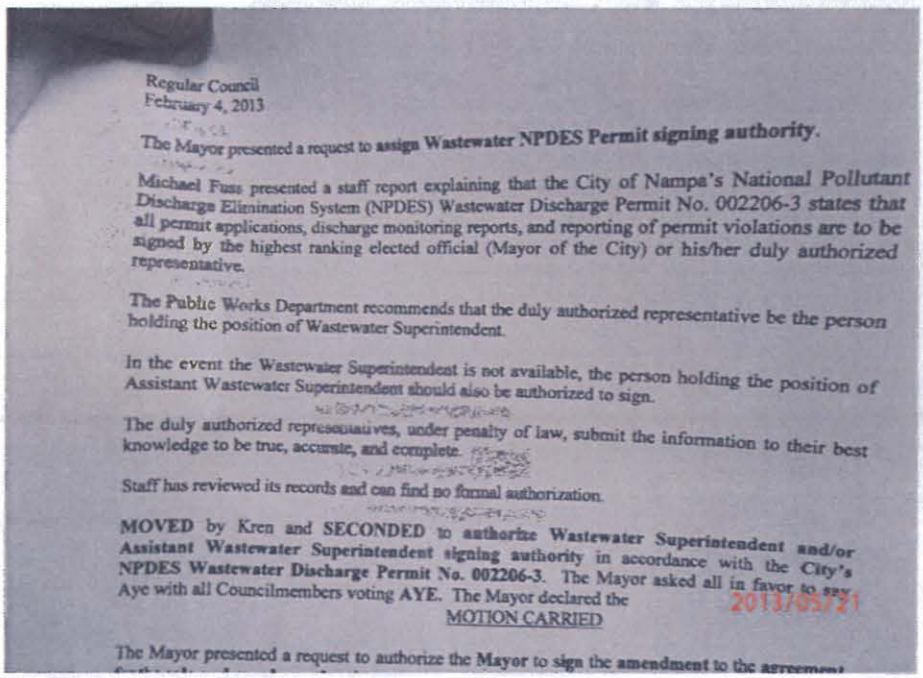
Photograph 48: Photo of Pretreatment Annual Report for October 2009 to September 2010



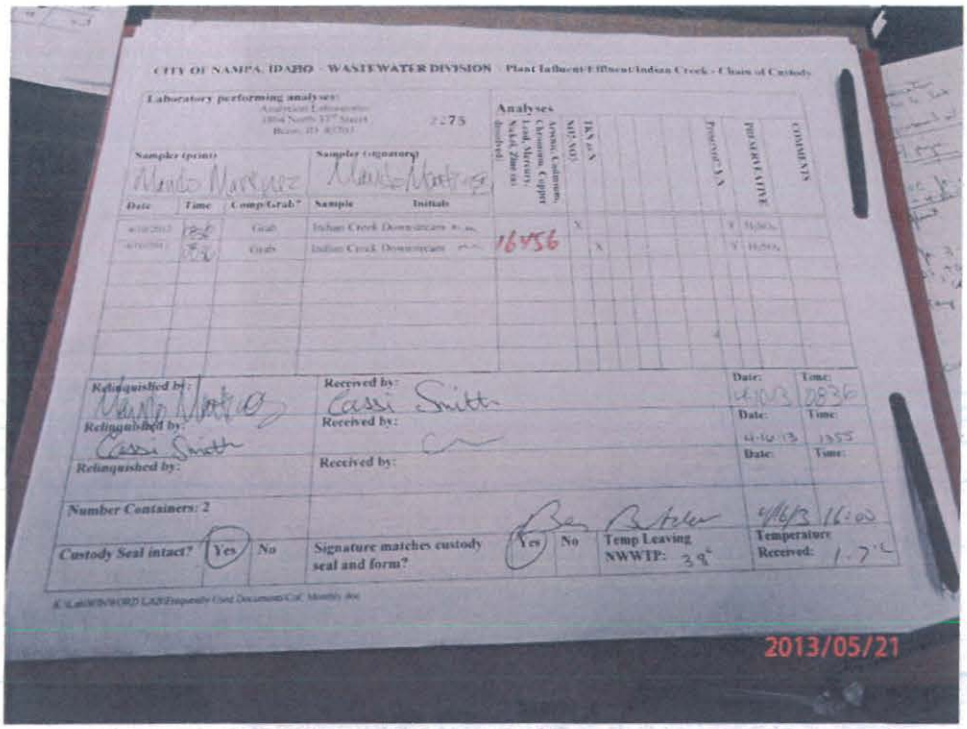
Photograph 49: Calibration records for the influent and effluent flow meters



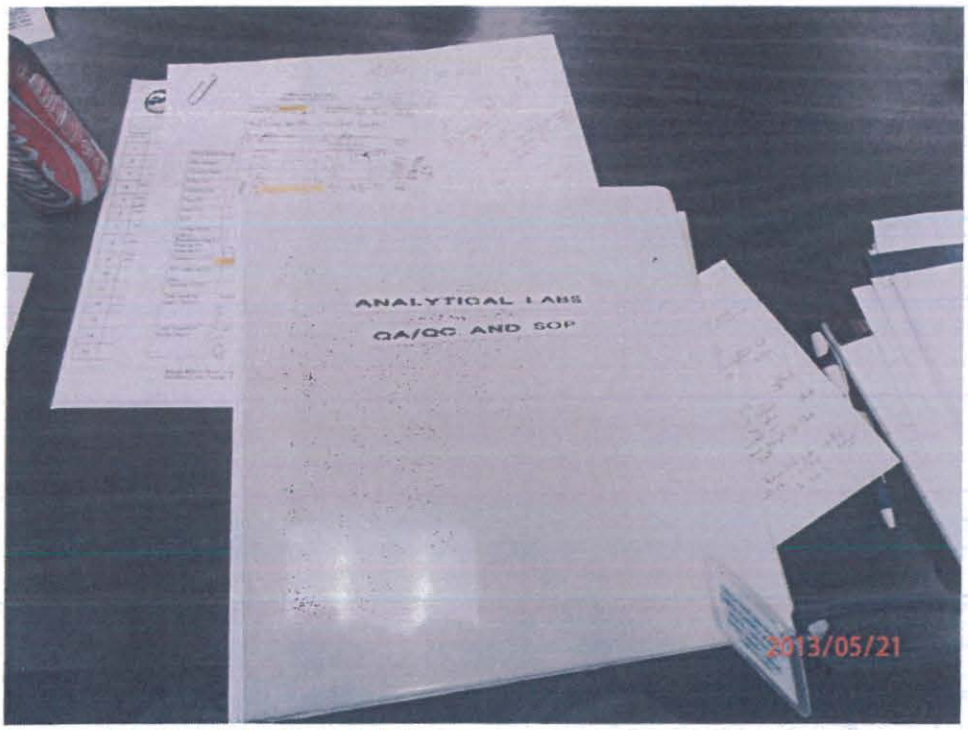
Photograph 50: NPDES Reapplication submitted on July 2, 2003



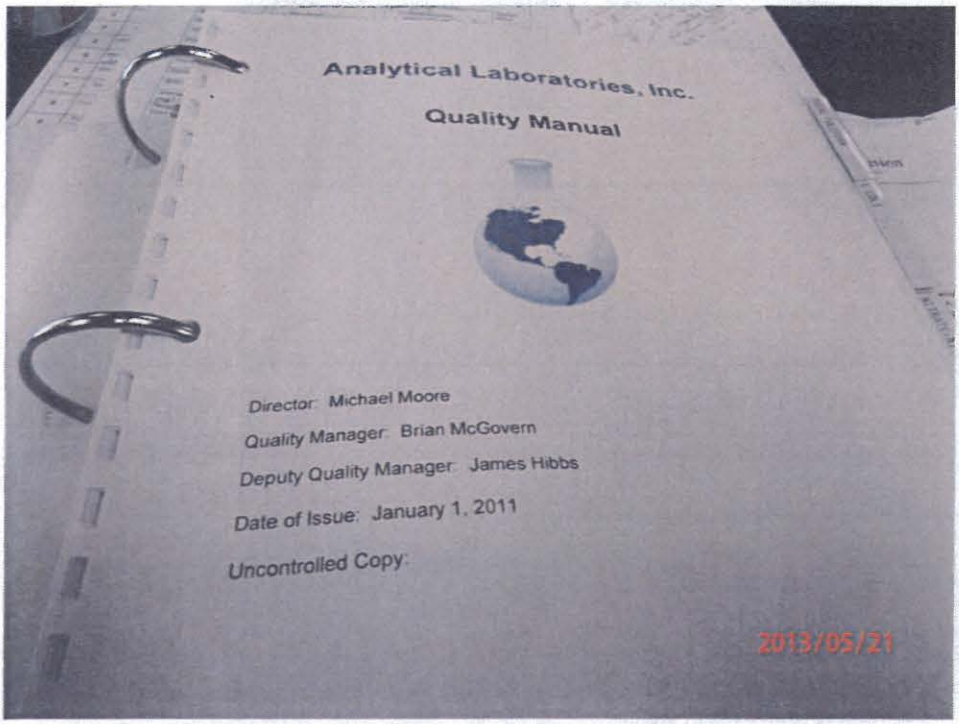
Photograph 51: Copy of letter granting signatory approval for DMRs to Plant Superintendent and Asst Superintendent



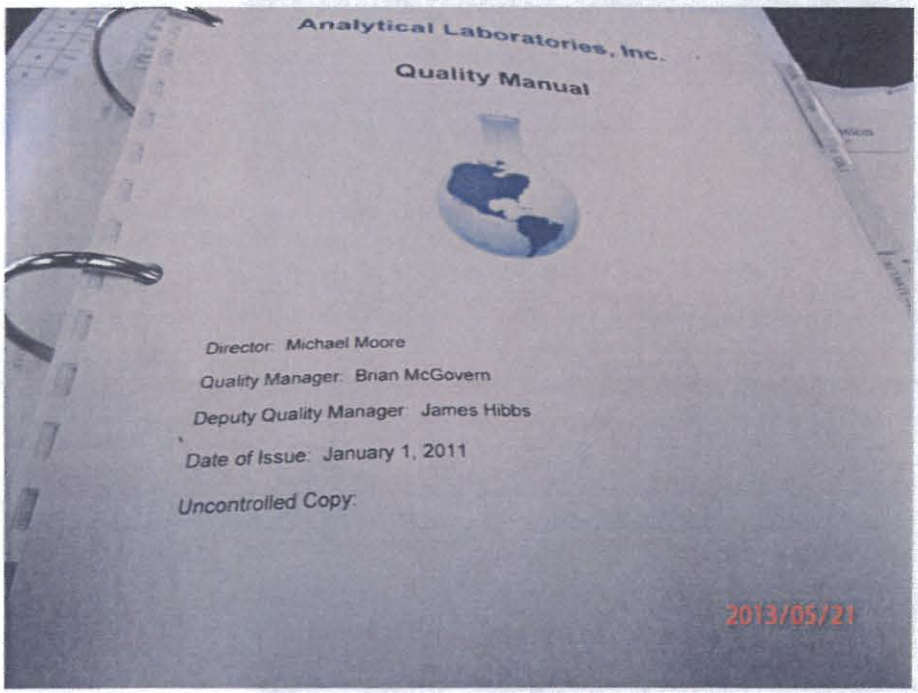
Photograph 52: Typical chain of custody form used by lab



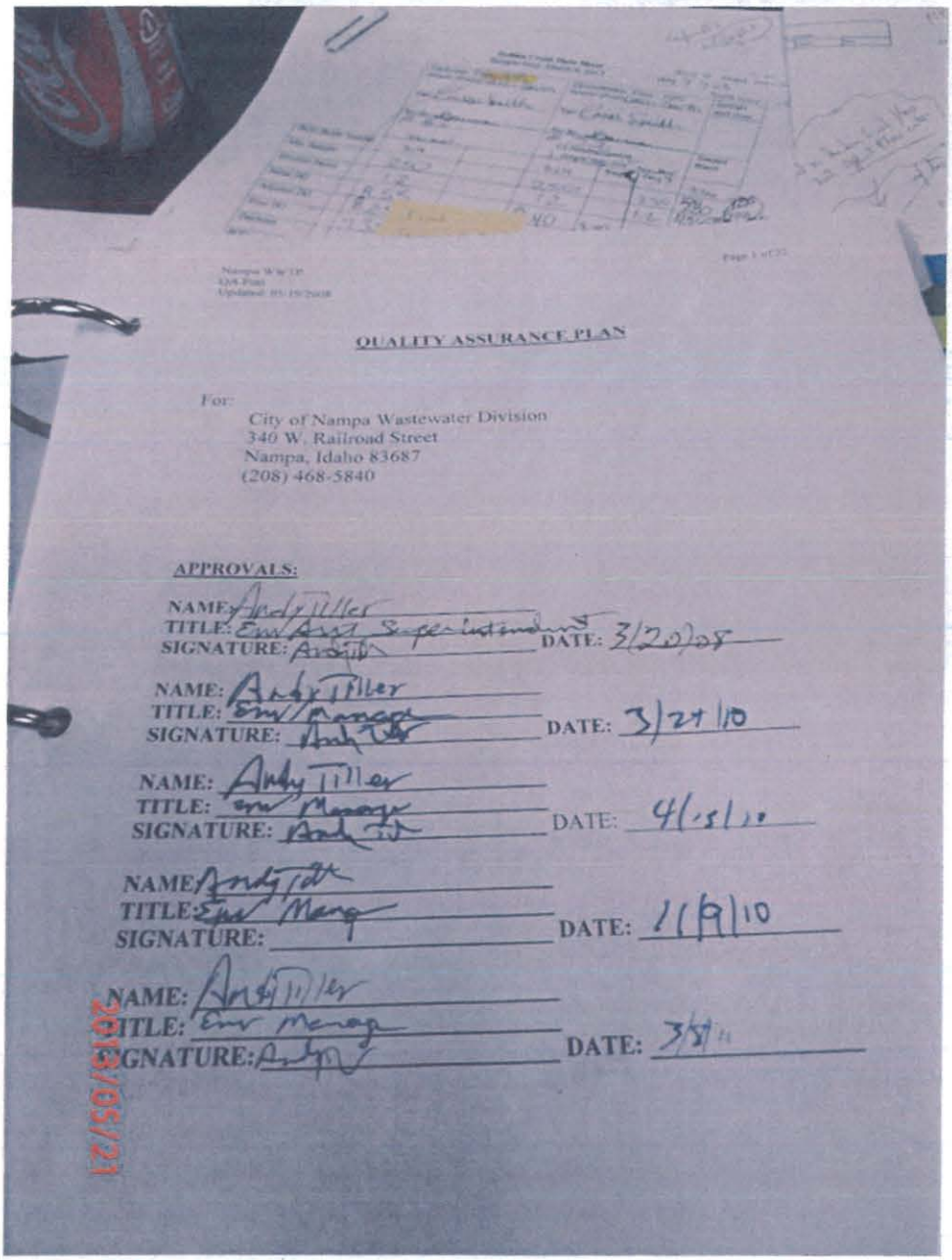
Photograph 53: The QA plan for Analytical Labs



Photograph 54: The QA plan for Analytical Labs dated January 1, 2011



Photograph 55: The QA plan for Analytical Labs dated January 1, 2011



QUALITY ASSURANCE PLAN

For:
City of Nampa Wastewater Division
340 W. Railroad Street
Nampa, Idaho 83687
(208) 468-5840

APPROVALS:

NAME: Andy Tiller
TITLE: Env Asst Superintendent
SIGNATURE: DATE: 3/20/08

NAME: Andy Tiller
TITLE: Env Manager
SIGNATURE: DATE: 3/24/10

NAME: Andy Tiller
TITLE: Env Manager
SIGNATURE: DATE: 4/5/10

NAME: Andy Tiller
TITLE: Env Manager
SIGNATURE: DATE: 1/19/10

NAME: Andy Tiller
TITLE: Env Manager
SIGNATURE: DATE: 3/8/11

2013/05/21

Photograph 56: Review and approval sheet for the QAP

Photograph 57: Upstream flow meter station on Indian Creek - under bridge on Northside Blvd.